China

Economic Situation and Market Overview

Under China's economic reform program, domestic consumption of forest products has increased dramatically since 1986. China was the only Asian economy to increase its total imports of wood products following the 1997 Asian recession. China's GDP has increased at an average annual rate of about 9%, which has stimulated demand for primary and secondary processed wood products. While somewhat unpredictable, industry experts predict that China's growing demand for forest products will continue. The country's annual timber shortage is expected to increase from 40 million cubic meters to 90 million cubic meters from 2000 to 2010 as the recently announced logging ban takes effect. Total timber production for 1999 was expected to be almost 50 million cubic meters, yet demand was estimated to be 60 million cubic meters. Imports make up the remaining 10 million cubic meters (Waggener and Zeng *unpublished report*). FAS officials, however, estimate that unrecorded timber from illegal logging and smuggling makes consumption much higher than 60 million cubic meters (FAS 1999a).

China's forest products market, like many other sectors of the economy, is changing rapidly under economic reforms. There are several drivers for China's increased consumption of forest products, including rising GDP, one of the largest populations in the world, increasing construction activity, and newly lowered tariffs on forest product imports. Housing reforms have also stimulated demand for wood products. While demand is increasing rapidly, limited available forestland and increased forest protection measures constrain China's domestic timber production (Waggener and Zeng *unpublished report*).

As the economy continues to develop, demand for secondary and manufactured forest products should continue to increase. Expenditures on primary, secondary, and manufactured forest product imports (solid wood, pulp, and paper) almost doubled, from $3.5 billion in 1992, to $6 billion in 1997 (Figure 26). Imports of primary forest products are relatively constant at about $1 billion. Rising consumption and declining domestic timber production will likely mean greater demand for imported secondary processed wood products. US wood product exports have also increased steadily. As shown in Figure 27, paper products are the leading US wood product exports to China, yet primary and secondary wood product exports have also increased.

To preserve forests threatened by floods, especially the type of serious floods that took place during the summer of 1998, the Chinese government announced efforts to limit deforestation. The most important action taken is a proposed nationwide logging ban for harvesting in the remaining natural forests. The demand for imported wood should increase as China depletes its current surplus of timber and wood products. This will likely create a growing timber shortage over the next several decades and should provide long-term opportunities for wood product imports.

In 1993, China launched its Affordable Housing Project, which brought rental prices for government housing closer to market prices. The project has also encouraged people to buy their own homes and will likely drive economic growth in the housing market over the next three to five years. The Chinese government is also encouraging privately owned housing by forbidding construction of employer-owned housing. While the public initially thought that housing reform policies would be immediate, including rent hikes to push people into the market for housing, the government bowed to opposition and will institute more gradual rent increases. Since the market will not be immediately flooded with individuals seeking new housing, the demand for wood should be strong but gradual as opposed to spiking. New construction of offices, shopping centers, apartments, and hotels has been uninterrupted. Although the Affordable Housing Project is expected to stimulate demand for privately owned housing, the number of single family homes, particularly wood homes, is low and limited to upper-income individuals (FAS 1999b).

An area of significant growth resulting from the Affordable Housing Project is in the apartment sector. As housing is becoming more market driven, the interiors of apartments are being upgraded. Wooden finishes in apartments are particularly popular in urban centers. Investment in new housing will also have a multiplier effect on associated industries, especially wood for construction, furniture, and interior use. Housing reform is a major national undertaking, however, which will only gradually bring new opportunities for foreign firms that export secondary and manufactured products to China. Imports of secondary and manufactured forest products could increase in the next five years, assuming the economy continues to grow at the same pace (Waggener and Zeng *unpublished report*).

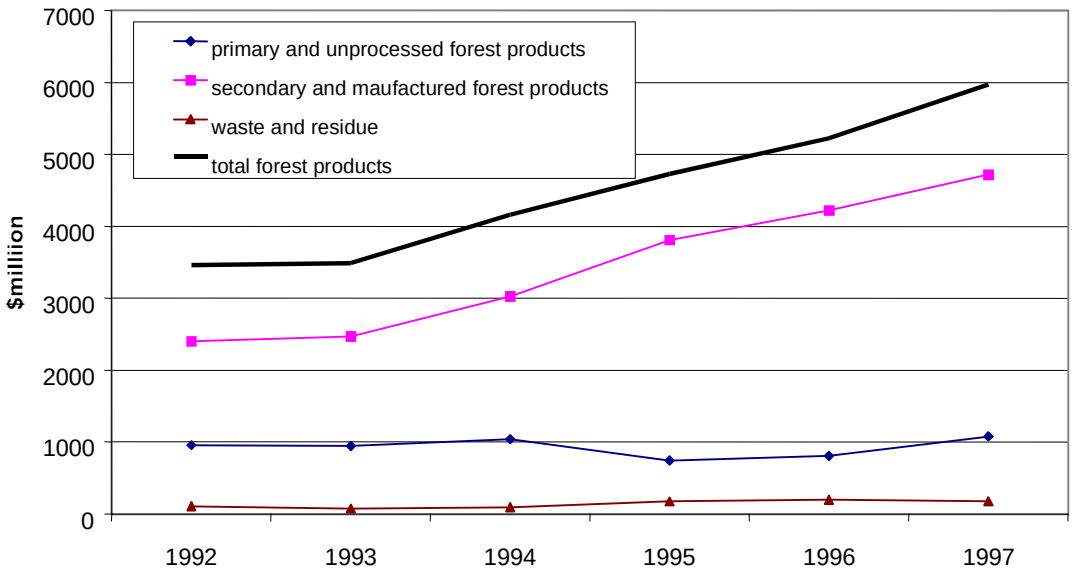

Figure 26. China's total imports of wood products, 1992-1997 (Source: Waggener and Zeng unpublished report).

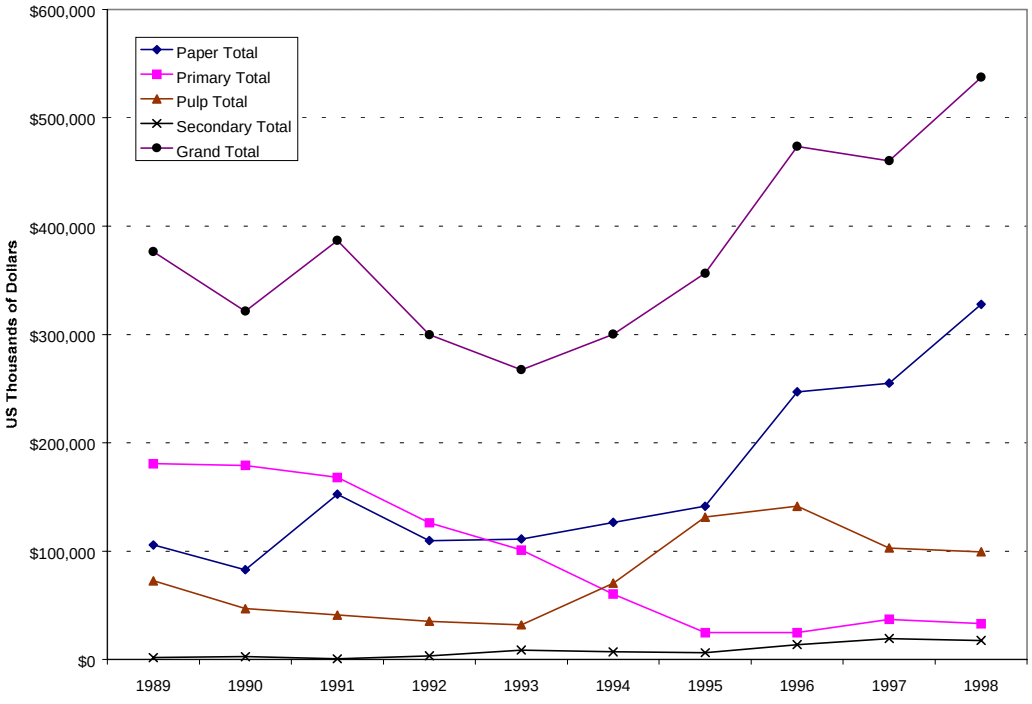

Figure 27. US wood product exports to China, 1989-1998 (Source: U.S. Department of Commerce 1999).

Expanding the single family wood-frame housing sector is difficult for several reasons. Building standards, codes, and regulations are inconsistent, and there are no formal quality control measures in place. There is also limited knowledge among Chinese housing officials and architects about proper 2x4 construction technology. If wooden building materials are to be more fully accepted, widespread education regarding structural applications and construction technology is needed (FAS 1999b).

While demand for wood products in China is increasing, price is a primary determinant in who will supply the market. As a result, Southeast Asia is China's primary supplier of softwood lumber. New Zealand, for example, was virtually non-existent in the Chinese market in 1993, yet by 1998 New Zealand was China's second leading supplier of softwood lumber. Several factors have helped New Zealand increase their market share including proximity to market, a consistent exchange rate, and a lower cost plantation resource. While radiata pine from New Zealand is lower quality than North American species, much imported wood is used for formwork, packaging, and remanufacturing into particleboard and plywood (FAS 1999b).

As shown in Figure 28, softwood log imports over the past two years have greatly exceeded temperate and tropical hardwood imports. However, softwood logs are generally used in low value applications such as pallets, plywood, and particleboard. Frames made of softwood lumber used to to package glass sheets for construction are also a signficant end-use for imported logs (FAS 1999b). As shown in Table 22, the majority of China's softwood log imports come from Russia and North Korea. Imports from the US have been inconsistent, but are improving. The China National Timber Import and Export Coropration (CNTIEC), a dealer and warehouser, imports low quality softwood for packaging. CNTIEC regularly buys Douglas fir logs from the US and New Zealand, but it recently purchased low-cost spruce and hemlock from Alaska. In 1996, 0.7 million m^3 of timber was used as packaging, yet recycled plastic pallets are becoming more popular and may increasingly replace wooden pallets. The Chinese government controls all imports through ownership of import-export corporations, limiting the number of legal avenues for importing wood products (FAS 1998).

Fearing that the Chinese longhorn beetle and other wood boring pests would be transmitted through pallets and packaging, the US, Canada, and the EU enacted restrictions on the import of Chinese wood packaging (FAS 1998). The export ban, China's logging ban, and China's efforts to develop alternate packaging to conserve wood resources should affect the future of China's leading wood consuming sector. Wooden boxes are already being replaced by by corrugated cardboard, wooden pallets by honeycomb paper, and bottom frames by iron. Bamboo plywood may also replace corrugated cardboard in situations where more strength is needed (FAS 1998).

Table 22. China's softwood log imports by country origin, 1995-1998 (cubic meters).

	1995	**1996**	**1997**	**1998**
Russia	170,180	199,606	531,502	1,072,696
North Korea	68,993	223,103	258,408	174,293
Burma	209,389	84,989	--	--
Malaysia	19,810	--	45,588	86,072
New Zealand	31,035	64,102	29,685	75,280
Myanmar	--		23,910	16,546
US	55,896	26,749	27,956	47,790
Total	**590,118**	**639,395**	**930,170**	**1,480,230**

Source: Foreign Agricultural Service 1999b. (1 cubic meter = 423 board feet)

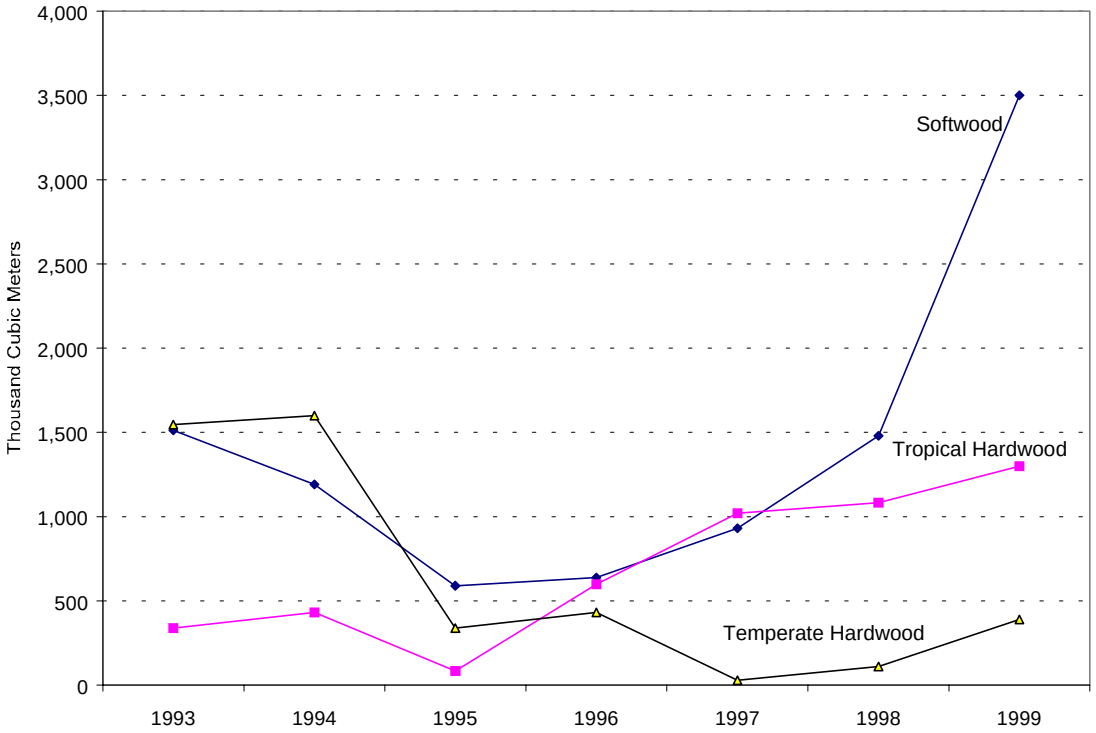

Figure 28. China's log imports by type, 1993-1999 (Source: FAS 1994-1999b).

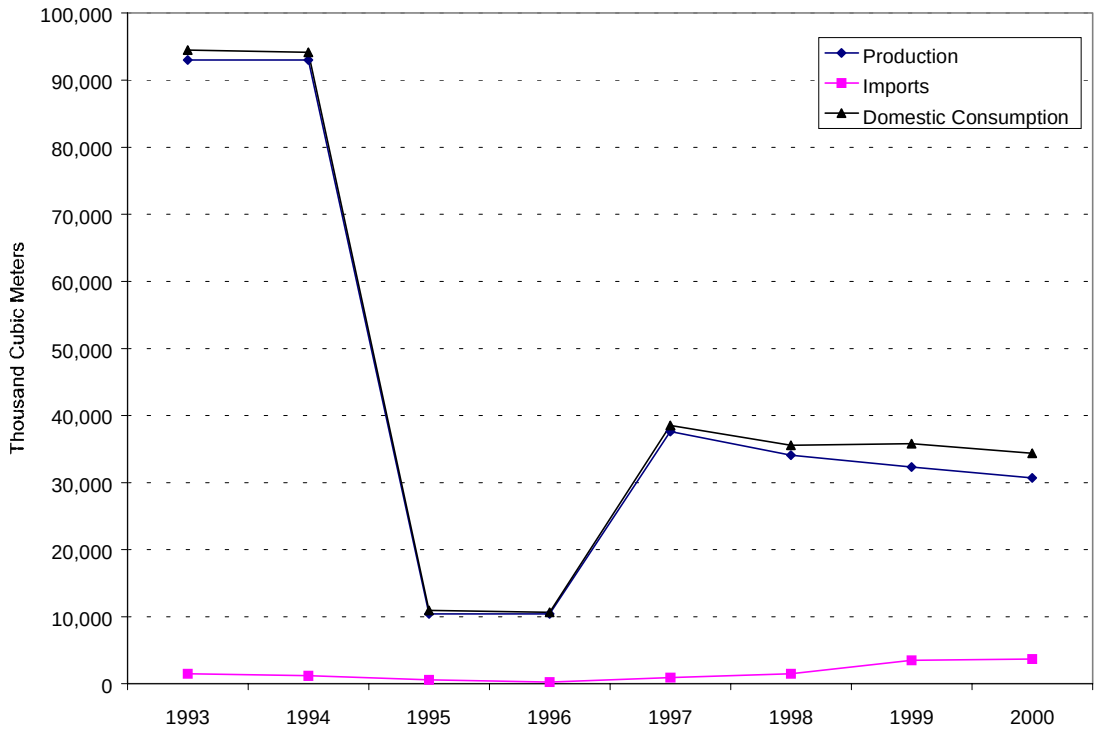

Figure 29. China's domestic production, consumption, and imports of softwood logs, 1993-2000* (*estimate). (Source: FAS 1999a).

Dimension Lumber

Import statistics indicate that the US is losing its share of the Chinese lumber market. As shown in Table 23, from 1995 to 1998, US export volume increased yet market share declined 2%. Market share has instead shifted to lower cost suppliers in Southeast Asia such as Myanmar, Indonesia, and New Zealand. While imports from Mongolia have increased significantly, timber production in Inner Mongolia was expected to decline 39% from 3.8 million cubic meters to 2.3 million in 1999, which should affect the volume imported by China. Total log and lumber imports are expected to continue to increase in 2000, although at a slower rate as the initial surge following the logging ban wanes (FAS 1999b).

The leading end-use for dimension lumber is wood-frame construction, which is a very small segment of China's housing market. Ownership of western-style wood-frame homes is limited to very wealthy Chinese or foreigners. Table 24 includes China's softwood import volume from the US by species. Very low volumes of yellow cedar and SPF were imported over the past seven years. There may be small volumes of white spruce and Alaska cedar included in the spruce and cedar volumes noted below, yet the total volume is negligible.

Table 23. China's softwood lumber imports by country of origin, 1992-1998 (cubic meters).

	1992	1993	1994	1995	1996	1997	1998	% Share 1995	% Share 1998
Mongolia	254,144	83,183	n/a	32,327	5,955	174,516	265,637	21%	67%
New Zealand	--	--	n/a	6,577	2,447	23,579	27,358	4%	7%
Indonesia	2,659	7,832	n/a	9,223	3,304	17,627	17,345	6%	4%
US	5,107	1,322	n/a	8,903	2,040	20,862	16,557	6%	4%
Myanmar	16,441	--	n/a	--	--	15,097	13,590	--	3%
Russia	17,463	50,804	n/a	16,336	410	6,763	9,588	11%	2%
Canada	59,169	73,316	n/a	19,785	4,213	6,941	9,473	13%	2%
Malaysia	10,072	5,857	n/a	2,600	--	11,327	9,105	2%	2%
Taiwan	909	4,628	n/a	8,371	402	8,057	8,286	5%	2%
Kirghizia	--	108,546	n/a	--	--	--	--	--	--
Burma	--	24,067	n/a	40,651	6,088	--	--	27%	--
Other	4,259	8,153	n/a	8,514	1,889	17,953	20,982	6%	5%
Total	**370,223**	**367,708**	**n/a**	**153,287**	**26,748**	**302,722**	**397,921**		

Source*:* FAS 1999a. (1 cubic meter = 423 board feet)

Table 24. Leading US softwood lumber exports to China, 1992-1999 (cubic meters).

	1992	1993	1994	1995	1996	1997	1998	1999
Ponderosa Pine	--	--	--	--	--	37	1,283	1,838
Spruce, NESOI	6,176	--	--	--	--	2	367	864
Cedar, NESOI	--	--	70	140	197	259	257	536
Southern Yellow Pine	--	256	128	74	--	132	63	31
Western Red Cedar	--	--	--	--	60	169	134	9
Eastern White & Red Pine	--	--	--	--	136	--	--	--
Hemlock	8,030	386	413	--	--	--	3,064	--
Larch	--	--	--	--	--	--	--	44
Hem-Fir	--	6	--	--	--	242	55	--
Pine, NESOI	--	45	24	--	--	--	--	--
Redwood	--	179	298	--	1,057	--	--	--
Sitka Spruce	--	--	--	--	--	150	--	--
SPF	--	--	--	--	--	463	1,643	--
Yellow Cedar	--	--	--	74	281	--	--	--

Source*:* USITC 2000. *NESOI = non-specified. (1 cubic meter = 423 board feet)

Strategic Recommendations

While the 1998 logging ban on natural forests in China has stimulated demand for imported wood products, much of the wood products imported are low quality logs to be used in the country's furniture and remanufacturing sectors. As shown earlier in this section, softwood log imports over the past two years have greatly exceeded temperate and tropical hardwood imports. However, softwood logs are generally used in low value applications such as pallets, plywood, and particleboard (FAS 1999b). Low price is key in the Chinese market for wood products, which is reflected in the large share that Russia maintains of China's imported log market. One segment that Alaska producers have succeeded in supplying is China's pallet manufacturing sector. The China National Timber Import and Export Coropration, an importer and wholesaler that imports softwood lumber to produce pallets regularly buys Douglas fir logs from the US and New Zealand, yet it recently purchased low-cost spruce and hemlock from Alaska.

China may continue to be a market for Alaska's lower quality logs and green lumber. While the wood frame housing market and the markets for interior wood products are small, they are likely to grow as the Chinese government provides incentives for home owners. Inconsistent wood frame construction regulations and the challenge of changing consumer perceptions about the durabilty of wood frame housing may be obstacles that are too great to overcome for US suppliers to focus on the wood frame housing sector as an end-market. Interior wood products, however, are becoming increasingly popular among individuals living in apartments and single family homes. It is not likely that Alaska processors will make significant headway by producing finished interior products, yet as demand for upgraded interiors increase, Alaska producers may supply more raw materials for China's domestic manufacturing industries.